



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/522,796

12/15/2005

Juhani Aalto

PIR-118

6776

20374 7590 11/25/2008
KUBOVCIK & KUBOVCIK
SUITE 1105
1215 SOUTH CLARK STREET
ARLINGTON, VA 22202

EXAMINER

MA, JAMESON Q

ART UNIT

PAPER NUMBER

4153

MAIL DATE

DELIVERY MODE

11/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,796	Applicant(s) AALTO ET AL.	
	Examiner JAMESON Q. MA	Art Unit 4153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/28/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20051215</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, the phrases "preferably" and "such as" renders the claim indefinite because it is unclear whether the limitation(s) following the phrases are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Paffhausen et al (US 6,191,852).

Regarding claims 1, 3, and 7, Paffhausen discloses a multifunction instrument for measuring biochemical and medical samples (see abstract), which are preferably placed into wells of sample plates (see Fig. 2a: microtitre plate 4) and measured by a detector (see Fig. 1: image sensor 6 and glass fiber taper element 1 form a detector), the instrument having means for moving the detector into two different positions for using at least two different light paths for measuring the samples (see Figs. 2a & 2b: horizontal rotary spindle 12), characterized in that the

Art Unit: 4153

multifunction instrument is provided with a device for moving the detector into the following two different positions for two different light paths:

- in the first position (see Fig. 2b) the detector is placed close to the sample or sample well (see Fig. 2b: microtitre plate 4 and test objects 5) for receiving signals via the first light path,
- and in the second position (see Fig. 2a) for non-radioactive measuring, such as fluorescence (see C7/L35-38) measuring the detector is arranged to receive emitted light from the sample (see Fig. 2a: microtitre plate 4 and test objects 5) via the second path.

Regarding limitations recited in claims 1, 3, and 7 which are directed to a manner of operating disclosed multifunction instrument, such as: for measuring radioactive labels by liquid scintillation and the presence of light conducting/optical components between the detector and sample, it is noted that neither the manner of operating a disclosed device nor material or article worked upon further limit an apparatus claim. Said limitations do not differentiate apparatus claims from prior art. See MPEP § 2114 and 2115. Further, it has been held that process limitations do not have patentable weight in an apparatus claim. See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969) that states “Expressions relating the apparatus to contents thereof and to an intended operation are of no significance in determining patentability of the apparatus claim.”

Regarding claims 2 and 11, Paffhausen discloses all of the claim limitations as set forth above. Additionally, Paffhausen discloses the multifunction instrument characterized in that the multifunction instrument is provided with a rotating device for rotating the detector in two different positions for the said two different light paths (see Figs. 2a & 2b: horizontal rotary spindle 12).

Regarding limitations recited in claim 11 which are directed to a manner of operating disclosed multifunction instrument, such as the use of the multifunction instrument for liquid scintillation counting, it is noted that neither the manner of operating a disclosed device nor material or article worked upon further limit an apparatus claim. Said limitations do not differentiate apparatus claims from prior art. See MPEP § 2114 and 2115. Further, it has been held that process limitations do not have patentable weight in an apparatus claim. See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969) that states “Expressions relating the apparatus to contents thereof and to an intended operation are of no significance in determining patentability of the apparatus claim.”

Regarding claims 4-6, Paffhausen discloses all of the claim limitations as set forth above. Additionally, Paffhausen discloses the multifunction instrument:

- characterized in that in the second position (see Fig. 2a and Fig. 6) of the detector the multifunction instrument has a light source (see Fig. 6: excitation light 33) provided for excitation light with the second light path for fluorescence measuring (see C7/L35-38).
- characterized in that the multifunction instrument is provided with an absorbance detector (see Fig. 1: image sensor 6 and glass fiber taper element 1 form an absorbance detector) to be used with the light source.
- characterized in that
 - the detector is provided with slide and guide elements for turning the detector into the said two positions (see Figs. 2a & 2b and C6/L13-15: horizontal rotary spindle 12 allows the entire system to pivot about its axis, hence it is a slide and guide element),

Regarding limitations recited in claims 4-6 which are directed to a manner of operating disclosed multifunction instrument, such as the use of the instrument for liquid scintillation measuring, it is noted that neither the manner of operating a disclosed device nor material or article worked upon further limit an apparatus claim. Said limitations do not differentiate apparatus claims from prior art. See MPEP § 2114 and 2115. Further, it has been held that process limitations do not have patentable weight in an apparatus claim. See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969) that states “Expressions relating the apparatus to contents thereof and to an intended operation are of no significance in determining patentability of the apparatus claim.”

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

Art Unit: 4153

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paffhausen et al. (US 6,191,852) as applied to claims 1-7 and 11 above, in view of Sonne et al. (US 5,416,329).

Regarding claim 8, Paffhausen discloses all of the claim limitations as set forth above. Additionally, Paffhausen discloses the system for collecting photons from reactions in microtitre plates (see C5/L43-47 and Fig. 5: microtitre plate 4)

Paffhausen does not explicitly disclose the multifunction instrument characterized in that in the vertical first position a cover plate provided with an aperture is placed between the detector and the sample well for guiding the light from the sample through the aperture to the detector.

Sonne discloses that liquid scintillation photons are detected by photomultiplier tubes (see C1/L27-29). Sonne further discloses an apparatus assembly (see Fig. 7: apparatus 100) with detector assemblies (see Fig. 7: 410 and 420). The apparatus is also provided with aperture plates (see C9/L21-30 and Fig. 11: aperture plate 421) that have circular aperture holes (see Fig. 11: holes 422 and 423) that correspond to the diameters of 24-well and 96-well sample plates (see C9/L21-30).

Paffhausen and Sonne are analogous because both references are directed to detecting light photons from standard microtitre/sample plates.

Art Unit: 4153

It would have been obvious to one of ordinary skill at the time of invention to include in the multifunction instrument of Paffhausen, a cover (see the aperture plate) as taught by Sonne, in order to reduce the amount of crosstalk interference between wells being analyzed.

Regarding claims 9-10, modified Paffhausen discloses all of the claim limitations as set forth above.

Additionally, Sonne discloses:

- the cover plate is a slide element provided with at least two apertures of different size diameter (see C9/L21-30),
- the slide element can be moved in horizontal direction for placing any of the apertures above the sample well to be measured (see C9/L49-53: x-y transportation means changes the positions of aperture plates 411 and 421 to correspond to the sample plate holder type).
- characterized in that at least one aperture in the slide element is funnel shaped (as defined by the Webster's Dictionary, a funnel can be defined as "something shaped like a funnel": any aperture in the aperture plate actually forms a tube with a length equal to the thickness of the aperture plate, a tube is viewed as "something shaped like a funnel") so that the aperture end of smaller diameter facing the sample well substantially fits the size of the diameter of the sample well (see C9/L21-30: the smaller diameter corresponding to the 96-well plates substantially fits the size of the diameter of the 96-well plates).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMESON Q. MA whose telephone number is (571)270-7063. The examiner can normally be reached on M-R 7:30 AM - 6:00 PM.

Art Unit: 4153

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571)272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JM

November 22, 2008

/Basia Ridley/
Supervisory Patent Examiner, Art Unit 4153